DATA

Disease, Population, Type

DATA STREAM CONTEXT

GOALS

# Biosurveillance Data Stream Framework

**Process:** The process of gathering, integrating, interpreting, and communicating

Knowledge: Essential information related to all-hazards threats or disease activity

affecting human, animal, or plant health

**Purpose:** To achieve early detection and warning, contribute to overall

situational awareness of the health aspects of an incident, and to

enable better decision making at all levels

National Strategy for Biosurveillance, 2012

# Early Warning of Health Threats

Surveillance that enables the identification of potential threats, including emerging and re-emerging diseases, that may be undefined or unexpected

# Early Detection of Health Events

SCOPE

Surveillance that enables identification of disease outbreaks (either natural or intentional in origin), or events that have occurred, before they become significant

# Situational Awareness

Surveillance that monitors the location, magnitude and spread of an outbreak or event once it has occurred

# **Consequence Management**

Surveillance that assesses impacts and informs response to an outbreak or an event

➤ Time

### **Baseline Awareness**

Information that can inform and facilitate the achievement of the above surveillance goals and can be related to population demographics and health, the natural, social, and built environment and underlying disease patterns and characteristics

# Infectious Disease(s) of Interest

# Human Animal Plant Pathogen Pest

# **Diagnostic**

Data that leads to identification of a pathogen, or confirmed diagnosis of disease

# **Syndromic**

Health-related data that may precede or substitute for formal diagnosis

### **Environmental**

Non-health related data associated with the social, natural, and/or built environment

# DATA STREAM CATEGORIES

Ambulance / EMT Records
Clinic/Health Care Provider Records
ED/Hospital Records
Employment/School Records
Established Databases

Financial Records
Help Lines

**Internet Search Queries** 

**Laboratory Records** 

**News Aggregators** 

Official Reports

Police/Fire Department Records

**Personal Communication** 

**Prediction Markets** 

Sales

Social Media

# DATA STREAM DETAILS

Algorithms
Collection Method

**Data Accuracy** 

Data Processing Before Analysis

**Data Quality** 

**Data Reporting** 

**Data Security** 

**Data Structure** 

**Data Transmission** 

**Geospatial Characteristics** 

Metadata Collected

**Population Characteristics** 

Stakeholders

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